IN THE CLAIMS:

Please amend the claims as indicated in the complete listing of pending claims listed below.

1. (withdrawn) A method to blend two images, the method comprising:

loading a vector of keys into a vector register;

converting the vector of keys into a first vector of blending factors for a first image and a second vector of blending factors for a second image using a plurality of look up tables in a vector look up unit; and

computing an image attribute for a blended image using the blending factors.

2. (withdrawn) A method as in claim 1 wherein the blending factors are one of:

a) floating point numbers;

b) fixed point numbers; and

c) integers.

3. (withdrawn) A method as in claim 1 wherein said converting comprises:

generating a first vector of indices in a vector register by replicating a first subset of the vector of keys as a first subset of the first vector of indices for looking up first blending factors for the first image and replicating the first subset of the vector of keys as a second subset of the first vector of indices for looking up second blending factors for the second image; and

looking up simultaneously the first and second blending factors using the first vector of indices in the vector look up unit.

4.	(withdrawn) A method as in claim 3 further comprising:

storing the first blending factors into the first vector of blending factors and the

second blending factors into the second vector of blending factors.

5.	(withdrawn) A method as in claim 1 wherein said converting comprises:

generating a first vector of indices in a vector register, one key in the vector of keys

being replicated as a first plurality of indices in the first vector of indices for

looking up respectively a plurality of bit segments of a first blending factor;

and

looking up simultaneously a first vector of blending factors comprising the first

blending factor using the first vector of indices in the vector look up unit.

6.	(withdrawn) A method to blend two images, the method comprising:

loading a first vector of keys into a vector register;

loading a second vector of keys into a vector register;

converting the first vector of keys into a first vector of blending factors for a first

image and the second vector of keys into a second vector of blending factors

for a second image using a plurality of look up tables in a vector look up unit;

and

computing an image attribute for a blended image using the blending factors.

7.	(withdrawn) A method as in claim 6 wherein the blending factors are one of:

a) floating point numbers;

b) fixed point numbers; and

c) integers.

8. (withdrawn) A method as in claim 6 wherein said converting comprises:

generating a first vector of indices in a vector register by replicating a first subset of

the first vector of keys as a first subset of the first vector of indices for looking

up first blending factors for the first image and replicating a first subset of the

second vector of keys as a second subset of the first vector of indices for

looking up second blending factors for the second image; and

looking up simultaneously the first and second blending factors using the first vector

of indices in the vector look up unit.

9. (withdrawn) A method as in claim 8 further comprising:

storing the first blending factors into the first vector of blending factors and the

second blending factors into the second vector of blending factors.

10. (withdrawn) A method as in claim 6 wherein said converting comprises:

generating a first vector of indices in a vector register, one key in the first vector of

keys being replicated as a first plurality of indices in the first vector of indices

for looking up respectively a plurality of bit segments of a first blending

factor; and

looking up simultaneously a first vector of blending factors comprising the first

blending factor using the first vector of indices in the vector look up unit.

11.   (withdrawn) A machine readable media containing executable computer program instructions which when executed by a digital processing system cause said system to perform a method to blend two images, the method comprising:

loading a vector of keys into a vector register;

converting the vector of keys into a first vector of blending factors for a first image and a second vector of blending factors for a second image using a plurality of look up tables in a vector look up unit; and

computing an image attribute for a blended image using the blending factors.

12.   (withdrawn) A media as in claim 11 wherein the blending factors are one of:

a) floating point numbers;

b) fixed point numbers; and

c) integers.

13.   (withdrawn) A media as in claim 11 wherein said converting comprises:

generating a first vector of indices in a vector register by replicating a first subset of the vector of keys as a first subset of the first vector of indices for looking up first blending factors for the first image and replicating the first subset of the vector of keys as a second subset of the first vector of indices for looking up second blending factors for the second image; and

looking up simultaneously the first and second blending factors using the first vector of indices in the vector look up unit.

14.   (withdrawn) A media as in claim 13 wherein the method further comprises:

storing the first blending factors into the first vector of blending factors and the second blending factors into the second vector of blending factors.

15.   (withdrawn) A media as in claim 11 wherein said converting comprises:

generating a first vector of indices in a vector register, one key in the vector of keys being replicated as a first plurality of indices in the first vector of indices for looking up respectively a plurality of bit segments of a first blending factor; and

looking up simultaneously a first vector of blending factors comprising the first blending factor using the first vector of indices in the vector look up unit.

16.   (withdrawn) A machine readable media containing executable computer program instructions which when executed by a digital processing system cause said system to perform a method to blend two images, the method comprising:

loading a first vector of keys into a vector register;

loading a second vector of keys into a vector register;

converting the first vector of keys into a first vector of blending factors for a first image and the second vector of keys into a second vector of blending factors for a second image using a plurality of look up tables in a vector look up unit; and

computing an image attribute for a blended image using the blending factors.

17.   (withdrawn) A media as in claim 16 wherein the blending factors are one of:

a) floating point numbers;

b) fixed point numbers; and

c) integers.

18.   (withdrawn) A media as in claim 16 wherein said converting comprises:

generating a first vector of indices in a vector register by replicating a first subset of

the first vector of keys as a first subset of the first vector of indices for looking

up first blending factors for the first image and replicating a first subset of the

second vector of keys as a second subset of the first vector of indices for

looking up second blending factors for the second image; and

looking up simultaneously the first and second blending factors using the first vector

of indices in the vector look up unit.

19.   (withdrawn) A media as in claim 18 wherein the method further comprises:

storing the first blending factors into the first vector of blending factors and the

second blending factors into the second vector of blending factors.

20.   (withdrawn) A media as in claim 16 wherein said converting comprises:

generating a first vector of indices in a vector register, one key in the first vector of

keys being replicated as a first plurality of indices in the first vector of indices

for looking up respectively a plurality of bit segments of a first blending

factor; and

looking up simultaneously a first vector of blending factors comprising the first

blending factor using the first vector of indices in the vector look up unit.

21.   (withdrawn) A processing system to blend two images, the system comprising:

means for loading a vector of keys into a vector register;

means for converting the vector of keys into a first vector of blending factors for a

first image and a second vector of blending factors for a second image using a

plurality of look up tables in a vector look up unit; and

means for computing an image attribute for a blended image using the blending

factors.

22.   (withdrawn) A processing system as in claim 21 wherein the blending factors are one

of:

a) floating point numbers;

b) fixed point numbers; and

c) integers.

23.   (withdrawn) A processing system as in claim 21 wherein said means for converting

comprises:

means for generating a first vector of indices in a vector register by replicating a first

subset of the vector of keys as a first subset of the first vector of indices for

looking up first blending factors for the first image and replicating the first

subset of the vector of keys as a second subset of the first vector of indices for

looking up second blending factors for the second image; and

means for looking up simultaneously the first and second blending factors using the

first vector of indices in the vector look up unit.

24.   (withdrawn) A processing system as in claim 23 further comprising:

means for storing the first blending factors into the first vector of blending factors and

the second blending factors into the second vector of blending factors.

25.　(withdrawn) A processing system as in claim 21 wherein said means for converting comprises:

means for generating a first vector of indices in a vector register, one key in the vector of keys being replicated as a first plurality of indices in the first vector of indices for looking up respectively a plurality of bit segments of a first blending factor; and

means for looking up simultaneously a first vector of blending factors comprising the first blending factor using the first vector of indices in the vector look up unit.

26.　(withdrawn) A processing system to blend two images, the system comprising:

means for loading a first vector of keys into a vector register;

means for loading a second vector of keys into a vector register;

means for converting the first vector of keys into a first vector of blending factors for a first image and the second vector of keys into a second vector of blending factors for a second image using a plurality of look up tables in a vector look up unit; and

means for computing an image attribute for a blended image using the blending factors.

27.　(withdrawn) A processing system as in claim 26 wherein the blending factors are one of:

a) floating point numbers;

b) fixed point numbers; and

c) integers.

28.   (withdrawn) A processing system as in claim 26 wherein said means for converting comprises:

means for generating a first vector of indices in a vector register by replicating a first subset of the first vector of keys as a first subset of the first vector of indices for looking up first blending factors for the first image and replicating a first subset of the second vector of keys as a second subset of the first vector of indices for looking up second blending factors for the second image; and

means for looking up simultaneously the first and second blending factors using the first vector of indices in the vector look up unit.

29.   (withdrawn) A processing system as in claim 28 further comprising:

means for storing the first blending factors into the first vector of blending factors and the second blending factors into the second vector of blending factors.

30.   (withdrawn) A processing system as in claim 26 wherein said means for converting comprises:

means for generating a first vector of indices in a vector register, one key in the first vector of keys being replicated as a first plurality of indices in the first vector of indices for looking up respectively a plurality of bit segments of a first blending factor; and

means for looking up simultaneously a first vector of blending factors comprising the first blending factor using the first vector of indices in the vector look up unit.

31.   (original) A processing system to blend two images, the system comprising:

a vector register file comprising a plurality of vector registers;

a vector processing unit coupled to the vector register file, the vector processing unit

comprising a vector look up unit adapted to look up a vector of data items

simultaneously, the vector processing unit:

loading a vector of keys into a vector register in the vector register file;

converting the vector of keys into a first vector of blending factors for a first

image and a second vector of blending factors for a second image

using a plurality of look up tables in the vector look up unit; and

computing an image attribute for a blended image using the blending factors.

32.   (original) A processing system as in claim 31 wherein the blending factors are one of:

a) floating point numbers;

b) fixed point numbers; and

c) integers.

33.   (original) A processing system as in claim 31 wherein to convert the vector of keys

the vector processing unit:

generates a first vector of indices in a vector register in the vector register file by

replicating a first subset of the vector of keys as a first subset of the first

vector of indices for looking up first blending factors for the first image and

replicating the first subset of the vector of keys as a second subset of the first

vector of indices for looking up second blending factors for the second image;

and

looks up simultaneously the first and second blending factors using the first vector of

indices in the vector look up unit.

34.   (original) A processing system as in claim 33 wherein the vector processing unit stores the first blending factors into the first vector of blending factors in a first vector register in the vector register file and the second blending factors into the second vector of blending factors in a second vector register in the vector register file.

35.   (original) A processing system as in claim 31 wherein to convert the vector of keys the vector processing unit:

generates a first vector of indices in a vector register in the vector register file, one

key in the vector of keys being replicated as a first plurality of indices in the

first vector of indices for looking up respectively a plurality of bit segments of

a first blending factor; and

looks up simultaneously a first vector of blending factors comprising the first

blending factor using the first vector of indices in the vector look up unit.

36.   (original) A processing system to blend two images, the system comprising:

a vector register file comprising a plurality of vector registers;

a vector processing unit coupled to the vector register file, the vector processing unit

comprising a vector look up unit adapted to look up a vector of data items

simultaneously, the vector processing unit:

loading a first vector of keys into a vector register in the vector register file;

loading a second vector of keys into a vector register in the vector register file;

converting the first vector of keys into a first vector of blending factors for a

first image and the second vector of keys into a second vector of

blending factors for a second image using a plurality of look up tables
in the vector look up unit; and

computing an image attribute for a blended image using the blending factors.

37.   (original) A processing system as in claim 36 wherein the blending factors are one of:
a) floating point numbers;
b) fixed point numbers; and
c) integers.

38.   (original) A processing system as in claim 36 to convert the vector of keys the vector
processing unit:
generates a first vector of indices in a vector register by replicating a first subset of
the first vector of keys as a first subset of the first vector of indices for looking
up first blending factors for the first image and replicating a first subset of the
second vector of keys as a second subset of the first vector of indices for
looking up second blending factors for the second image; and
looks up simultaneously the first and second blending factors using the first vector of
indices in the vector look up unit.

39.   (currently amended) A processing system as in claim 38 wherein the vector
processing unit stores the first blending factors into the first vector of blending factors
in a first vector register in the vector ~~regsiter~~ register file and the second blending
factors into the second vector of blending factors in a second vector register in the
vector register file.

40.   (original) A processing system as in claim 36 wherein to convert the vector of keys the vector processing unit:

generates a first vector of indices in a vector register in the vector register file, one key in the first vector of keys being replicated as a first plurality of indices in the first vector of indices for looking up respectively a plurality of bit segments of a first blending factor; and

looks up simultaneously a first vector of blending factors comprising the first blending factor using the first vector of indices in the vector look up unit.